

## 4.2 AIR QUALITY

The following section describes the existing air quality setting in San Luis Obispo County and the potential short-term and long-term air quality impacts associated with development of the proposed project. Emission rates were generated using standard emission factors and the California Emission Estimator Model (CalEEMod) modeling program, as applicable. CalEEMod data sheets and other emission calculations are included in the Air Quality and GHG Emissions Appendix (refer to Appendix C). This analysis attempts to provide a reasonable worst-case scenario of potential air emissions resulting from construction and operation of the project, and recommends mitigation to reduce those impacts to a less than significant level where feasible. Please refer to EIR Section 4.6 for an analysis of GHG Emissions and Climate Change.

### 4.2.1 Existing Conditions

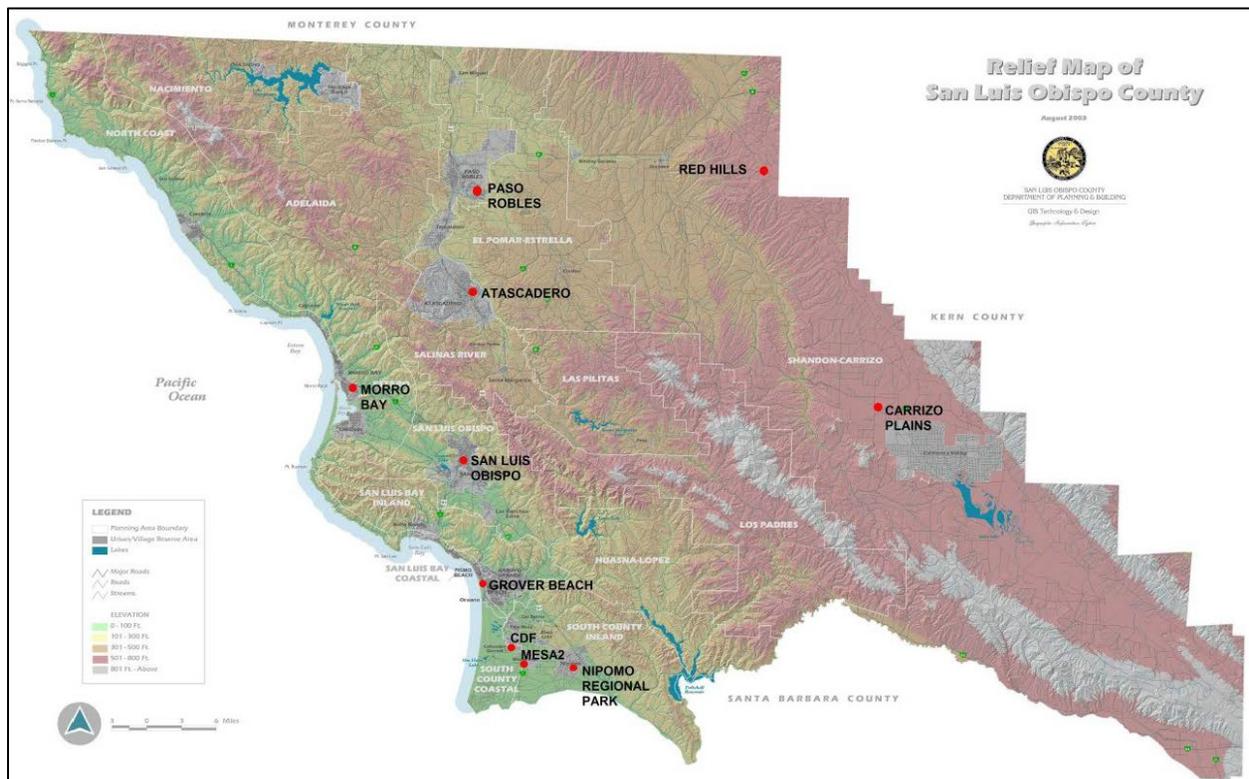
San Luis Obispo County constitutes a land area of approximately 3,316 square miles with varied vegetation, topography, and climate. From a geographical and meteorological standpoint, the county can be divided into three general regions: the Coastal Plateau, the Upper Salinas River Valley, and the East County Plain. Air quality in each of these regions is characteristically different, although the physical features that divide them provide only limited barriers to the transport of pollutants between regions. The proposed project is located within the Coastal Plateau (SLOAPCD 2001). Motor vehicles are the primary source of long-term emissions (SLOAPCD 2012a). Approximately 75% of the county population and corresponding portion of the commercial and industrial facilities are located within the Coastal Plateau. Due to higher population density and closer spacing of urban areas, emissions of air pollutants per unit area are generally higher in this region than in other regions of the county.

Asbestos can occur naturally in certain rock formations, such as those that include serpentine or ultramafic rock. At this site, the Franciscan Melange is present, generally underlying the Monterey Formation. It is a mixed-rock unit that, in this locale, consists predominantly of highly fractured green serpentine, dark-green to black shale, and metavolcanic rocks. Based on review of the SLOAPCD's Naturally Occurring Asbestos Zones Map, the project site is located in an area potentially containing naturally occurring asbestos.

#### 4.2.1.1 San Luis Obispo County Air Quality Monitoring

The county's air quality is measured by multiple air ambient air quality monitoring stations, including a station located in Grover Beach approximately 8 miles southeast of the project site. There are ten permanent stations in the county; eight stations are operated by the SLOAPCD and two stations (San Luis Obispo and Paso Robles) are operated by the California Air Resources Board (CARB) (refer to Figure 4.2-1). Air quality monitoring is rigorously controlled by federal and state quality assurance and control procedures to ensure data validity. Gaseous pollutant levels are measured continuously and averaged each hour, 24 hours a day. Particulate matter is monitored in two ways: PM<sub>10</sub> (inhalable particulate matter 10 microns or less in size) and PM<sub>2.5</sub> (inhalable particulate matter 2.5 microns or less in size) are sampled hourly (SLOAPCD 2013a).

Figure 4.2-1. Ambient Air Monitoring Stations



Source: SLOAPCD 2014

#### 4.2.1.2 San Luis Obispo County Existing Air Quality

The significance of a given pollutant can be evaluated by comparing its atmospheric concentration to state and federal air quality standards. These standards represent allowable atmospheric containment concentrations at which the public health and welfare are protected, and include a factor of safety. In San Luis Obispo, ozone and fine particulate are the pollutants of main concern, since exceedances of state health-based standards for those pollutants are experienced in some areas of the county.

#### San Luis Obispo County Attainment Status

Table 4.2-1 summarizes the attainment status in San Luis Obispo County for the major criteria pollutants. The county is designated as a non-attainment area for the state ozone and PM<sub>10</sub> standards.

Table 4.2-1. San Luis Obispo County Attainment Status

Pollutant	Averaging Time	California Standards*		Federal Standards*	
		Concentration*	Attainment Status	Concentration	Attainment Status
Ozone (O <sub>3</sub> )	1 Hour	0.09 ppm (180 µg/m <sup>3</sup> )	Non-Attainment	--	Non-Attainment Eastern SLO County – Attainment Western SLO County***
	8 Hour	0.070 ppm (137 µg/m <sup>3</sup> )		0.075 ppm (147 µg/m <sup>3</sup> )	
Respirable Particulate Matter (PM <sub>10</sub> )	24 Hour	50 µg/m <sup>3</sup>	Non-Attainment	150 µg/m <sup>3</sup>	Unclassified*/Attainment
	Annual Arithmetic Mean	20 µg/m <sup>3</sup>		--	
Fine Particulate Matter (PM <sub>2.5</sub> )	24 Hour	No State Standard	Attainment	35 µg/m <sup>3</sup>	Unclassified*/Attainment
	Annual Arithmetic Mean	12 µg/m <sup>3</sup>		12.0 µg/m <sup>3</sup> ****	
Carbon Monoxide (CO)	8 Hour	9.0 ppm (10 mg/m <sup>3</sup> )	Attainment	9 ppm (10 mg/m <sup>3</sup> )	Unclassified*
	1 Hour	20 ppm (23 mg/m <sup>3</sup> )		35 ppm (40 mg/m <sup>3</sup> )	
Nitrogen Dioxide (NO <sub>2</sub> )	Annual Arithmetic Mean	0.030 ppm (57 µg/m <sup>3</sup> )	Attainment	0.053 ppm (100 µg/m <sup>3</sup> )	Unclassified*
	1 Hour	0.18 ppm (330 µg/m <sup>3</sup> )		100 ppb (196 mg/m <sup>3</sup> )	
Sulfur Dioxide (SO <sub>2</sub> )	Annual Arithmetic Mean	--	Attainment	0.030 ppm (80 µg/m <sup>3</sup> )	Unclassified*
	24 Hour	0.04 ppm (105 µg/m <sup>3</sup> )		0.14 ppm (365 µg/m <sup>3</sup> )	
	3 Hour	--		0.5 ppm (1300 µg/m <sup>3</sup> )**	
	1 Hour	0.25 ppm (655 µg/m <sup>3</sup> )		75 ppb (196 mg/m <sup>3</sup> )	
Lead*	30 Day Average	1.5 µg/m <sup>3</sup>	Attainment	--	No Attainment Information
	Calendar Quarter	--		1.5 µg/m <sup>3</sup>	
	Rolling 3-month Average*	--		0.15 µg/m <sup>3</sup>	
Visibility Reducing Particles	8 Hour	Extinction coefficient of 0.23 per kilometer – visibility of 10 miles or more (0.07-30 miles or more for Lake Tahoe) due to particles when relative humidity is less than 70%. Method: Beta Attenuation and Transmittance through Filter Tape.	Attainment	No Federal Standards	
Sulfates	24 Hour	25 µg/m <sup>3</sup>	Attainment		
Hydrogen Sulfide	1 Hour	0.03 ppm (42 µg/m <sup>3</sup> )	Attainment		
Vinyl Chloride*	24 Hour	0.01 ppm (26 µg/m <sup>3</sup> )	No Attainment Information		

\* Unclassified (US EPA/Federal definition): Any area that cannot be classified on the basis of available information as meeting or not meeting the national primary or secondary ambient air quality standard for that pollutant.

\*\* Secondary Standard

\*\*\* San Luis Obispo County has been designated non-attainment east of the -120.4 deg Longitude line, in areas of San Luis Obispo County that are south of 35.45 degrees, and east of the -120.3 degree Longitude line, in areas of San Luis Obispo County that are north of latitude 35.45 degrees. Map of non-attainment area is available upon request from the SLOAPCD.

\*\*\*\* Federal PM<sub>2.5</sub> Secondary Standard is 15 µg/m<sup>3</sup>

Source: SLOAPCD 2013b

## 4.2.2 Regulatory Setting

### 4.2.2.1 Federal Policies and Regulations

Air quality protection at the national level is provided through the Clean Air Act (CAA), enacted in 1970 and significantly amended in 1990. These amendments represent the fifth major effort by the U.S. Congress to improve air quality. The federal CAA is generally less stringent than the California Clean Air Act. However, unlike the California law, the CAA set statutory deadlines for attaining federal standards. The 1990 amendments added several new sections to the law, including requirements for the control of toxic air contaminants, reductions in pollutants responsible for acid deposition, development of a national strategy for stratospheric ozone and global climate protection, and requirements for a national permitting system for major pollution sources.

### 4.2.2.2 State Policies and Regulations

The California Clean Air Act (CCAA) was signed into law in September 1988. It requires all areas of the state to achieve and maintain the California ambient air quality standards by the earliest practicable date. These standards are generally more stringent than the federal standards; thus, emission controls to comply with the state law are typically more stringent than necessary for attainment of the federal standards. The CCAA requires that all Air Pollution Control Districts adopt and enforce regulations to achieve and maintain the state ambient air quality standards for the area under its jurisdiction. Pursuant to the requirements of the law, the SLOAPCD adopted a Clean Air Plan (CAP) for its jurisdiction in 2001.

### 4.2.2.3 Local Policies and Regulations

The 2001 CAP (SLOAPCD 2001) is a comprehensive planning document intended to provide guidance to the SLOAPCD and other local agencies on how to attain and maintain the state standards for ozone and PM<sub>10</sub>. The CAP presents a detailed description of the sources and pollutants which impact the jurisdiction, future air quality impacts to be expected under current growth trends, and an appropriate control strategy for reducing ozone precursor emissions, thereby improving air quality. The following is a brief summary of programs currently implemented by SLOAPCD to reduce emissions and exposure to criteria and toxic air pollutants:

- **Rules and Regulations.** Numerous rules adopted by the County Board of Supervisors and implemented by SLOAPCD to address criteria pollutant emissions. For instance, several SLOAPCD rules address conventional emissions from combustion sources such as boilers, heaters, and engines that often result in equipment modifications or replacement that improves the energy efficiency of those units and reduces fossil fuel use. Similarly, rules that regulate or prohibit open burning activities reduce carbon dioxide (CO<sub>2</sub>) emissions from that activity. SLOAPCD Rule 426 regulates landfill emissions of methane.
- **Clean Fuels.** SLOAPCD is actively involved in and supports the efforts of the Central Coast Clean Cities Coalition (C5), a local nonprofit coalition which promotes the use of cleaner alternative fuel technologies. With over 40% of the GHG emissions coming from mobile sources, these efforts are an essential tool in reducing fossil fuel use and associated CO<sub>2</sub> emissions.
- **Development Review.** Through the CEQA review process, SLOAPCD evaluates impacts from land use development projects and recommends measures to reduce emissions. Mitigation measures focus on reducing emissions from motor vehicles and

improving energy efficiency, both of which directly reduce criteria pollutants and GHGs. Such strategies include incorporation of energy efficiency measures (increased insulation, high efficiency appliances and lighting, passive and active solar systems, etc.) that go beyond current building standards, and including Smart Growth principles into the project design to reduce vehicle trips and increase the viability of alternative transportation.

- **Grant Programs.** Many emission reduction projects funded through the various grant programs administered by SLOAPCD result in replacement or retrofit of older, high emission engines with cleaner and more efficient engines that simultaneously reduce fuel use, thus reducing CO<sub>2</sub> emissions. Conversion of stationary and mobile diesel engines to natural gas or electric motors also serves to reduce CO<sub>2</sub> emissions.
- **Transportation Choices Program.** In partnership with San Luis Obispo Regional Rideshare, Ride-On, and SLOAPCD, the Transportation Choices Program (TCP) is a free program offered to businesses and organizations throughout San Luis Obispo County to reduce employee and student commute trips and promote the use of alternative transportation.
- **Pollution Prevention.** The Pollution Prevention Program promotes the use of, and publicly recognizes small businesses which successfully employ, pollution prevention and emission reduction techniques as part of routine operating procedures. Many of the businesses so recognized have incorporated operational changes that reduce their emissions through efficiency improvements that also reduce fuel and produce use and save energy.
- **Public Outreach.** SLOAPCD implements a number of outreach campaigns to promote a variety of clean air programs, including backyards burning reduction programs, clean car awareness, pollution prevention, energy efficiency, and transportation alternatives, all of which promote community consciousness and lifestyle choices that can help reduce our impacts on climate change.

### 4.2.3 Thresholds of Significance

The significance of potential air quality impacts is based on thresholds identified within Appendix G of the CEQA Guidelines, the San Luis Obispo County Initial Study Checklist, and standards established within the SLOAPCD CEQA Air Quality Handbook (SLOAPCD 2012a). The specifics of these guidelines are defined below.

The significance of potential impacts is based on thresholds identified within Appendix G of the CEQA Guidelines and the County Initial Study Checklist, which provide the following thresholds for determining impact significance with respect to air quality and climate change. Impacts would be considered significant if the proposed project would:

- a. Violate any state or federal ambient air quality standard, or exceed air quality emission thresholds as established by the SLOAPCD.
- b. Expose any sensitive receptor to substantial air pollutant concentrations.
- c. Create or subject individuals to objectionable odors.
- d. Be inconsistent with the District's Clean Air Plan.

- e. Generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment.
- f. Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of GHGs.

The SLOAPCD has developed the 2012 CEQA Air Quality Handbook (SLOAPCD 2012a) to assist lead agencies, planning consultants, and project proponents in assessing the potential air quality impacts from residential, commercial, and industrial development. The CEQA Handbook defines the criteria used by the SLOAPCD to determine when an air quality analysis is necessary, the type of analysis that should be performed, the significance of the impacts predicted by the analysis, and the mitigation measures needed to reduce the overall air quality impacts. According to the CEQA Handbook, project impacts may also be considered significant if one or more of the following special conditions apply:

- If the project has the ability to emit hazardous or toxic air pollutants in the close proximity of sensitive receptors, such that an increased cancer risk affects the population;
- If the project has the potential to emit diesel particulate matter in an area of human exposure, even if overall emissions are low;
- If the project proposes remodeling or demolition operations where asbestos-containing materials will be encountered;
- If naturally occurring asbestos has been identified in the project area;
- If project has the ability to emit hazardous or toxic air pollutants in the close proximity of sensitive receptors, such as schools, churches, hospitals, etc.; or,
- If the project results in a nuisance odor problem to sensitive receptors.

### Significance of Short-Term Construction Emissions

Heavy equipment and earth-moving operations can generate construction dust and combustion emissions. These may have substantial temporary impacts on local air quality. Table 4.2-2 summarizes the level of construction-related emissions requiring mitigation.

**Table 4.2-2. Thresholds of Significance for Construction Emissions**

Pollutant	Threshold		
	Daily (lbs)	Quarterly Tier 1 (tons)	Quarterly Tier 2 (tons)
Reactive organic gases (ROG) and Nitrates of Oxygen (NO <sub>x</sub> ) combined	137	2.5	6.3
Diesel particulate matter (DPM)	7	0.13	0.32
Fugitive particulate matter (PM <sub>10</sub> ), dust	n/a	2.5	n/a
Greenhouse Gases (CO <sub>2</sub> , methane [CH <sub>4</sub> ], nitrous oxide [N <sub>2</sub> O], hydrofluorocarbon [HFC], chlorofluorocarbon [CFC], sulfur hexafluoride [F <sub>6</sub> S])	Amortized and Combined with Operational Emissions (see below)		

Source: SLOAPCD 2012a

Mitigation of construction activities is required when the emission thresholds are equaled or exceeded by fugitive and/or combustion emissions as follows:

#### *Reactive Organic Gases (ROG) and Nitrates of Oxygen (NO<sub>x</sub>) Emissions*

- **Daily:** For construction projects expected to be completed in less than one quarter (90 days), exceedance of the 137 pounds per day (lbs/day) threshold requires Standard Mitigation Measures;
- **Quarterly – Tier 1:** For construction projects lasting more than one quarter, exceedance of the 2.5 tons per quarter (ton/qtr) threshold requires Standard Mitigation Measures and Best Available Control Technology (BACT) for construction equipment. If implementation of the Standard Mitigation and BACT measures cannot bring the project below the threshold, off-site mitigation may be necessary; and,
- **Quarterly – Tier 2:** For construction projects lasting more than one quarter, exceedance of the 6.3 ton/qtr threshold requires Standard Mitigation Measures, BACT, implementation of a Construction Activity Management Plan (CAMP), and off-site mitigation.

#### *Diesel Particulate Matter Emissions*

- **Daily:** For construction projects expected to be completed in less than one quarter, exceedance of the 7 lbs/day threshold requires Standard Mitigation Measures;
- **Quarterly – Tier 1:** For construction projects lasting more than one quarter, exceedance of the 0.13 ton/qtr threshold requires Standard Mitigation Measures, and BACT for construction equipment; and,
- **Quarterly – Tier 2:** For construction projects lasting more than one quarter, exceedance of the 0.32 ton/qtr threshold requires Standard Mitigation Measures, BACT, implementation of a CAMP, and off-site mitigation.

#### *Fugitive Particulate Matter (PM<sub>10</sub>), Dust Emissions*

- **Quarterly:** Exceedance of the 2.5 ton/qtr threshold requires Fugitive PM<sub>10</sub> Mitigation Measures and may require the implementation of a CAMP.

#### *Special Conditions for Construction Activity*

In addition to the construction air quality thresholds defined above, there are a number of special conditions, local regulations, or state and federal rules that apply to construction activities. These conditions must be addressed in proposed construction activity and are summarized below.

#### *Sensitive Receptors*

The proximity of sensitive individuals (receptors) to a construction site constitutes a special condition and may require a more comprehensive evaluation of toxic diesel PM impacts and, if deemed necessary by the SLOAPCD, more aggressive implementation of mitigation measures than described below in the diesel idling section. Areas where sensitive receptors are most likely to spend time include schools, parks and playgrounds, day care centers, nursing homes, hospitals, and residential dwelling unit(s). The types of construction projects that typically

require a more comprehensive evaluation include large-scale, long-term projects that occur within 1,000 feet of a sensitive receptor location(s).

### *Permits*

Portable equipment and engines 50 horsepower (hp) or greater, used during construction activities will require California statewide portable equipment registration (issued by the CARB) or an Air Pollution Control District permit.

### Significance of Long-term Operational Emissions

The threshold criteria established by the SLOAPCD to determine the significance and appropriate mitigation level for long-term operational emissions (i.e., vehicular and area source emissions) from a project are presented in Table 4.2-3, below. Emissions that equal or exceed the designated threshold levels are considered potentially significant and should be mitigated. As shown in the table, the level of analysis and mitigation recommended follows a tiered approach based on the overall amount of emissions generated by the project. For projects requiring air quality mitigation, the SLOAPCD has developed a list of both standard and discretionary mitigation strategies tailored to the type of project being proposed: residential, commercial, or industrial.

**Table 4.2-3. Thresholds of Significance for Operational Emissions**

Pollutant	Threshold	
	Daily (lbs)	Annual (tons/year)
Ozone Precursors (ROG+NOx) <sup>1</sup>	25	25
Diesel Particulate Matter (DPM) <sup>1</sup>	1.25	n/a
Fugitive Particulate Matter (PM <sub>10</sub> ), Dust	25	25
CO	550	n/a
Greenhouse gases	<i>Consistency with a Qualified Greenhouse Gas Reduction Plan or 1,150 metric tons (MT) CO<sub>2</sub> equivalent (CO<sub>2</sub>e)/year or 4.9 CO<sub>2</sub>e/Service Population (SP)/year (residents + employees)</i>	

<sup>1</sup> CalEEMod – use winter operational emission data to compare to operational thresholds.

Source: SLOAPCD 2012a, 2012b

### *Ozone Precursor Emissions*

- If the project's ozone precursor emissions are below the APCD's **25 lbs/day** (combined ROG+NOx emissions) the project would not exceed the significant threshold identified by SLOAPCD and no ozone mitigation measures are necessary.
- Projects that emit **25 lbs/day** or more of ozone precursors (ROG+NOx combined) have the potential to cause significant air quality impacts, and should be submitted to the SLOAPCD for review. On-site mitigation measures, following the guidelines in §3.7 of the CEQA Air Quality Handbook (*Operational Emission Mitigation*), are recommended to reduce air quality impacts to a level of insignificance.

If all feasible mitigation measures are incorporated into the project and emissions can be reduced to less than 25 lbs/day, the proposed project would not exceed the significance threshold identified by SLOAPD (following implementation of mitigation measures).

If all feasible mitigation measures are incorporated into the project and emissions are still greater than 25 lbs/day, then an EIR should be prepared. Additional mitigation measures, including off-site mitigation, may be required depending on the level and scope of air quality impacts identified in the EIR.

- Projects which emit **25 tons/year** or more of ozone precursor (ROG+NO<sub>x</sub> combined), require the preparation of an EIR. Depending upon the level and scope of air quality impacts identified in the EIR, mitigation measures, including off-site mitigation, may be required to reduce the overall air quality impacts of the project to a level of insignificance.

### *Diesel Particulate Matter Emissions*

Diesel particulate matter (DPM) is seldom emitted from individual projects in quantities, which lead to local or regional air quality attainment violations. DPM is, however, a toxic air contaminant and carcinogen, and exposure to DPM may lead to increased cancer risk and respiratory problems. Certain industrial and commercial projects may emit substantial quantities of DPM through the use of stationary and mobile on-site diesel-powered equipment as well diesel trucks and other vehicles that serve the project.

Projects that emit more than **1.25 lbs/day** of DPM need to implement on-site BACT measures. If sensitive receptors are within 1,000 feet of the project site, a Health Risk Assessment (HRA) may also be required.

### *Fugitive Particulate Matter (Dust) Emissions*

Projects which emit more than **25 lbs/day** or **25 tons/year** of fugitive particulate matter need to implement permanent dust control measures to mitigate the emissions below these thresholds or provide suitable off-site mitigation approved by the SLOAPCD. Operational fugitive dust emissions from a proposed project are calculated using the California Emissions Estimator Model (CalEEMod) model discussed in §3.6.1 of the CEQA Handbook. Typical sources of operational emissions included the following:

- **Paved roadways:** Vehicular traffic on paved roads that are used to access large residential, commercial, or industrial projects can generate significant dust emissions.
- **Off- and/or on-site unpaved roads or surfaces:** Even at low traffic volume, vehicular traffic on unpaved roads or surfaces that are used to access residential, commercial, or industrial operations or that access special events, etc., can generate significant dust emissions.
- **Industrial and/or commercial operations:** Certain industrial operations can generate significant dust emissions associated with vehicular access, commercial or industrial activities.

Any of the above referenced land uses or activities can result in dust emissions that exceed the SLOAPCD significance thresholds, cause violations of an air quality standard, or create a

nuisance impact in violation of SLOAPCD Rule 402 *Nuisance*. In all cases where such impacts are predicted, appropriate fugitive dust mitigation measures shall be implemented.

### *Carbon Monoxide Emissions*

Carbon monoxide (CO) is a colorless, odorless, tasteless gas emitted during combustion of carbon-based fuels. While few land use projects result in high emissions of CO, this pollutant is of particular concern when emitted into partially or completely enclosed spaces such as parking structures and garages. Projects that emit more than 550 lbs/day of CO and occur in a confined or semi-confined space (e.g., parking garage or enclosed indoor stadium) must be modeled to determine their significance. In confined or semi-confined spaces where vehicle activity occurs, CO modeling is required. If modeling shows the potential to violate the state CO air quality standard, mitigation or project redesign is required to reduce CO concentrations to a level below the health-based standard.

### Guidelines for Applying ROG, NO<sub>x</sub> and PM<sub>10</sub> Mitigation Measures

In general, projects that do not exceed the 25 lbs/day ROG+NO<sub>x</sub> threshold do not require mitigation. For projects that exceed this threshold, the SLOAPCD has developed a list of mitigation strategies for residential, commercial, and industrial projects. The project proponent may suggest alternate mitigation measures if the APCD-suggested measures are not feasible. The recommended standard air quality mitigation measures have been separated according to land use (i.e., residential, commercial and industrial), measure type (i.e., site design, energy efficiency and transportation) and pollutant reduced (i.e., ozone, particulate matter, DPM, and GHGs). Any residential, commercial, or industrial project generating 25 lbs/day or more of ROG+NO<sub>x</sub> or PM<sub>10</sub> should select the applicable number of mitigation measure as outlined below from Table 3-5 of the CEQA Air Quality Handbook to reduce the air quality impacts from the project below the significance thresholds.

## **4.2.4 Impact Assessment and Methodology**

The APCD has established four separate categories of evaluation for determining the significance of air quality emissions. Full disclosure of the potential air pollutant and/or toxic air emissions from a project is needed for these evaluations, as required by CEQA. The evaluation categories include:

- Comparison of calculated project emissions to APCD emission thresholds;
- Consistency with the most recent Clean Air Plan;
- Comparison of predicted ambient pollutant concentrations resulting from the project to federal and state health standards, where applicable; and,
- The evaluation of special conditions that apply to certain projects.

Emission estimates for the proposed project have been quantified using CalEEMod software, and significance determinations are based on the SLOAPCD 2012 CEQA Air Quality Handbook and SLOAPCD CAP.

## 4.2.5 Project Specific Impacts and Mitigation Measures

The proposed project would result in both short-term construction-related impacts and long-term operational impacts. Grading and construction activities would result in the creation of construction dust, as well as short-term construction vehicle emissions. Fugitive dust emissions would result from land clearing, ground excavation, cut and fill operations, and equipment traffic. Combustion emissions, such as NO<sub>x</sub> and DPM, are most significant when using large diesel fueled scrapers, loaders, dozers, haul trucks, compressors, generators, and other types of equipment. Operational impacts would include increased vehicle traffic and area source emissions from various project components. Construction-related and operational emissions are analyzed separately under each threshold below.

### Violate Air Quality Standard or Exceed Emission Threshold

#### *Construction-Related Emissions*

As proposed, the project would result in the disturbance of approximately 16.5 acres, including approximately 115,000 cubic yards of cut and 43,000 cubic yards of fill. Based on recommendations identified in the Geologic/Geologic Hazards Study (Earth Systems Pacific 2014), and presence of crude-oil contaminated soil underlying the project site, grading activities would include the export of approximately 72,000 cubic yards of soil offsite. These actions would result in emissions of ROG, NO<sub>x</sub>, PM<sub>10</sub>, and DPM. Table 4.2-4 below identifies the potential emissions prior to implementation of default mitigation options identified in CalEEMod. Estimated emissions after implementation of standard mitigation measures are shown in Table 4.2-5. Based on the results of the modeling, construction of the proposed project would exceed daily and Quarterly Tier 2 thresholds for ROG+NO<sub>x</sub> and DPM even after application of standard mitigation measures; therefore additional mitigation including a CAMP and potentially off-site mitigation are required.

**Table 4.2-4. Construction Emissions (Unmitigated)**

	<b>ROG</b>	<b>NO<sub>x</sub></b>	<b>PM<sub>10</sub></b>	<b>DPM</b>	<b>CO<sub>2e</sub></b>
Winter Emissions (lbs/day)	354.50	330.48	20.83	14.65	60,852.20
Threshold (lbs/day)	137 (ROG and NO <sub>x</sub> )		n/a	7	n/a
Mitigation Required	<b>Yes</b>		n/a	<b>Yes</b>	n/a
Quarterly Emissions (tons/90 days)	15.95	14.87	0.94	0.66	n/a
Quarterly Tier 1 (tons)	2.5 (ROG and NO <sub>x</sub> )		2.5	0.13	n/a
Mitigation Required	<b>Yes</b>		No	<b>Yes</b>	n/a
Quarterly Tier 2 (tons)	6.3 (ROG and NO <sub>x</sub> )		n/a	0.32	n/a
Mitigation Required	<b>Yes</b>		n/a	<b>Yes</b>	n/a
Annual Emissions (tons/yr)	4.15	7.70	0.46	0.67	1,055.74
Annual Threshold (tons/yr)	25 (ROG and NO <sub>x</sub> )		25	n/a	n/a
Mitigation Required	No		No	n/a	n/a

**Table 4.2-5. Construction Emissions  
(After Application of Standard Mitigation Measures)**

	<b>ROG</b>	<b>NO<sub>x</sub></b>	<b>PM<sub>10</sub></b>	<b>DPM</b>	<b>CO<sub>2e</sub></b>
Winter Emissions (lbs/day)	351.08	293.56	15.98	8.18	60,852.20
Threshold (lbs/day)	137 (ROG and NO <sub>x</sub> )		n/a	7	n/a
Additional Mitigation Required	<b>Yes</b>		n/a	<b>Yes</b>	n/a
Quarterly Emissions (tons/90 days)	15.80	13.21	0.0005	0.37	2,738.35
Quarterly Tier 1 Threshold (tons)	2.5 (ROG and NO <sub>x</sub> )		2.5	0.13	n/a
Additional Mitigation Required	<b>Yes</b>		No	<b>Yes</b>	n/a
Quarterly Tier 2 Threshold (tons)	6.3 (ROG and NO <sub>x</sub> )		n/a	0.32	n/a
Additional Mitigation Required	<b>Yes</b>		n/a	<b>Yes</b>	n/a
Annual Emissions (tons/year)	3.73	5.31	0.35	0.19	1,055.74
Annual Threshold (tons/yr)	25 (ROG and NO <sub>x</sub> )		25	n/a	n/a
Additional Mitigation Required	No		No	n/a	n/a

Air emissions of criteria pollutants (CO, ROG, NO<sub>x</sub>, SO<sub>2</sub>, and PM<sub>10</sub>) during construction would result from the use of construction equipment with internal combustion engines (e.g., backhoes, cranes), and off-site vehicles (e.g., construction employee commuter vehicles and trucks delivering equipment and hauling materials to and from the site). Air emissions from construction equipment were estimated using the emission factors and equations from the CalEEMod software. Emissions of DPM would result from the use of diesel powered construction equipment and vehicles, and would occur within 1,000 feet of sensitive receptors (visitors to Old Fisherman's and Olde Port Beach).

As shown in Table 4.2-4, implementation of Standard Construction Measures, and use of Tier 3 or Tier 4 engines and diesel particulate filters would reduce ROG, NO<sub>x</sub>, and DPM emissions; however, based on standard defaults in the CalEEMod program, these mitigation measures would not reduce construction-related emissions below Quarterly Tier 2 thresholds. Additional mitigation is required, including BACT and CAMP. It may be feasible, based on further refinement of the grading and construction plans (i.e., actual fleet make-up, emissions level, and schedule) during preparation of the CAMP to reduce emissions below Quarterly Tier 2 thresholds. If, after the standard and BACT mitigation measures are factored into the refined emission estimation, the project still exceeds the Tier 2 threshold, then SLOAPCD-approved off-site mitigation would be required. Coordination with the SLOAPCD should begin at least 6 months prior to issuance of grading permits for the project to allow time for refining calculations and for the SLOAPCD to review and approve the CAMP and off-site mitigation approach.

If required, the Harbor District may apply off-site mitigation funding towards implementation of SLOAPCD-approved ROG+NO<sub>x</sub> and GHG emission reduction projects, or they may pay the off-site mitigation for projects plus an administration fee of 15% to the SLOAPCD to administer emission reduction projects. The Harbor District shall provide this funding at least two months

prior to the start of construction to help facilitate emission offsets that are as real-time as possible. If possible, the phase impacts should be addressed through one transaction.

<b>AQ Impact 1</b>	
Construction activities would generate ROG+NO <sub>x</sub> and DPM emissions that exceed SLOAPCD thresholds of significance.	
<b>Mitigation Measures</b>	
AQ/mm-1	<p><i>Prior to issuance of grading permits from the County of San Luis Obispo, and throughout project construction, as applicable, the Harbor District or their designee shall implement the following construction emission reduction measures:</i></p> <ol style="list-style-type: none"> <li><i>a. Properly maintain all construction equipment in proper tune according to manufacturer's specifications;</i></li> <li><i>b. Fuel all off-road and portable diesel powered equipment with CARB-certified motor vehicle diesel fuel (non-taxed version suitable for use off-road);</i></li> <li><i>c. Use CARB Tier 3 certified diesel construction equipment or cleaner off-road heavy-duty diesel engines, and comply with state Off-Road Regulations;</i></li> <li><i>d. Use CARB 2007 or cleaner certified on-road heavy-duty diesel trucks and comply with state On-Road Regulations.</i></li> <li><i>e. If construction or trucking companies that are awarded the bid or are subcontractors for the project do not have equipment to meet the above two measures, the impacts from the dirtier equipment shall be addressed through SLOAPCD approved off-site or other mitigation measures;</i></li> <li><i>f. All on- and off-road diesel equipment shall not idle for more than 5 minutes. Signs shall be posted in the designated queuing areas and job sites to remind drivers and operators of the 5-minute idling limit.</i></li> <li><i>g. Diesel idling within 1,000 feet of sensitive receptors is not permitted or applicable measures shall be employed as per the direction of the SLOAPCD, including monitoring or low-particulate engine technologies. Sensitive receptors are defined in the SLOAPCD Handbook as people that have an increased sensitivity to air pollution or environmental contaminants. Sensitive receptor locations include schools, parks and playgrounds, day care centers, nursing homes, hospitals, and residential dwelling units;</i></li> <li><i>h. Staging and queuing areas shall not be located within 1,000 feet of sensitive receptors or applicable measures shall be employed as per the direction of SLOAPCD, including monitoring or low-particulate engine technologies;</i></li> <li><i>i. Equipment shall be electrified when feasible;</i></li> <li><i>j. Substitute gasoline-powered or diesel hybrids in place of diesel-powered equipment, where feasible; and</i></li> <li><i>k. Use alternatively fueled construction equipment on-site where feasible, such as compressed natural gas (CNG), liquefied natural gas (LNG), propane, or biodiesel.</i></li> </ol>
AQ/mm-2	<p><i>Prior to issuance of grading permits from the County of San Luis Obispo, the Harbor District or their designee shall ensure SLOAPCD regulations that prohibit developmental burning of vegetative material within San Luis Obispo County are followed.</i></p>
AQ/mm-3	<p><i>Prior to issuance of grading permits, the Harbor District or their designee shall ensure that portable equipment and engines 50 horsepower or greater, used during grading and construction activities have a California portable equipment registration (issued by the CARB) or an SLOAPCD permit. Proof of registration must be provided to the SLOAPCD prior to the start of grading or construction or a permit secured from the SLOAPCD prior to the start of grading or construction. The following list is a guide to equipment and operations that may have permitting requirements, but it is not exclusive:</i></p> <ol style="list-style-type: none"> <li><i>a. Power screens, conveyors, diesel engines, and/or crushers;</i></li> <li><i>b. Portable generators and equipment with 50-horsepower or greater engines;</i></li> <li><i>c. Internal combustion engines;</i></li> <li><i>d. Unconfined abrasive blasting operations;</i></li> </ol>

<b>AQ Impact 1</b>	
	<ul style="list-style-type: none"> <li>e. Concrete batch plants;</li> <li>f. Rock and pavement crushing;</li> <li>g. Tub grinders; and</li> <li>h. Trommel screens.</li> </ul>
AQ/mm-4	<p>Prior to issuance of grading permits from the County of San Luis Obispo, the Harbor District or their designee shall obtain the required SLOAPCD permits for the removal or remediation of hydrocarbon contaminated soil. In addition, the following measures shall be implemented unless otherwise directed by the SLOAPCD upon a finding that alternative measures will result in equal or greater reduction in emission of air contaminants:</p> <ul style="list-style-type: none"> <li>a. Covers on storage piles shall be maintained in place at all times in areas not actively involved in soil addition or removal;</li> <li>b. Contaminated soil shall be covered with at least 6 inches of packed uncontaminated soil or other TPH –non-permeable barrier such as plastic tarp, or other methods as approved by the SLOAPCD. No headspace shall be allowed where vapors could accumulate;</li> <li>c. Covered piles shall be designed in such a way to eliminate erosion due to wind or water. No openings in the covers are permitted;</li> <li>d. The air quality impacts from the excavation and haul trips associated with removing the contaminated soil must be evaluated, with emissions estimates provided to the SLOAPCD and mitigated with low emission trucks, low emission construction equipment, and/or offsets if needed, if total emissions exceed the SLOAPCD’s construction phase thresholds. An estimate of these emissions is included in this EIR;</li> <li>e. During soil excavation, odors shall not be evident to such a degree as to cause a public nuisance, or violation of SLOAPCD regulations would result;</li> <li>f. Clean soil must be segregated from contaminated soil; and</li> <li>g. The permit shall specify applicable criteria established by SLOAPCD.</li> </ul> <p>The notification and permitting determination requirements shall be directed to the SLOAPCD Engineering Division.</p>
AQ/mm-5	<p>Prior to issuance of grading permits from the County of San Luis Obispo, or during construction, if emissions of ROG+NOx with the above mitigations still exceed the thresholds, the Harbor District or their designee shall secure SLOAPCD-approved off-site reductions in ROG+NOx emissions to ensure that ROG+NOx emissions do not exceed the SLOAPCD quarterly thresholds. Coordination with the SLOAPCD should begin at least 6 months prior to issuance of grading permits for the project to allow time for refining calculations and for the SLOAPCD to review and approve the CAMP and off-site mitigation approach. <u>Emissions calculations and results of the subsequent air quality analysis shall be provided to the County Environmental Coordinator for review and approval, in addition to the SLOAPCD.</u></p>
AQ/mm-6	<p>Prior to issuance of grading permits from the County of San Luis Obispo, the Harbor District or their designee shall ensure that all grading and construction equipment greater than 100 bhp be equipped with CARB Level 3 diesel particulate filters (DPF), or equivalent, to achieve an 85% reduction in diesel particulate emissions. If CARB verified Level 3 DPFs cannot be secured for all of the equipment greater than 100 hp then the Harbor District (or their designee) will work to offset the added DPM with measures including but not limited to schedule modifications, implementation of no idling requirement, and expanded implementation of AQ/mm-1 measures i, j, and k (e.g., use of alternative fueled generators).</p>
AQ/mm-7	<p>Prior to issuance of grading permits from the County of San Luis Obispo, the Harbor District or their designee shall produce a schedule detailing the phasing of activities and ensuring that the emissions of diesel particulates in any quarter falls below the applicable SLOAPCD thresholds. As an alternative approach, if scheduling is not feasible, the Harbor District or their designee shall provide SLOAPCD-approved off-site reductions in DPM emissions to ensure that DPM emissions do not exceed the SLOAPCD thresholds.</p>
Implement mitigation measures GHG/mm-1 and GHG/mm-2.	

<b>AQ Impact 1</b>
<b><i>Residual Impacts</i></b>
Implementation of Standard Construction Measures, BACT, and CAMP, including further refinement of the grading and construction schedule and subsequent modeling using actual fleet mixes and schedules may reduce potential air quality impacts to less than significant. If emissions are not shown to be reduced below SLOAPCD thresholds, off-site mitigation would be required. In combination, these measures would reduce potential impacts to less than significant.

During construction, a large portion of PM10 emissions typically arises from large pieces of equipment and vehicles traveling on disturbed soil, unpaved surfaces, and various earth-moving activities, such as grading and clearing. These emissions are known as “fugitive dust” and depend heavily on the size of the graded area, the volume of soil moved, the number of vehicles and construction machinery required, the duration of construction and the soil conditions (i.e., level of moisture, soil type). The fugitive PM10 emissions are estimated based on a disturbed area as provided on the preliminary grading plans. Grading activities could potentially result in a nuisance based on the proximity to beach areas and ocean breezes. Standard dust control measures would be required.

<b>AQ Impact 2</b>
Construction activities would generate fugitive dust, potentially resulting in a nuisance, and potentially exceeding SLOAPCD thresholds of significance related to exhaust particulates.
<b><i>Mitigation Measures</i></b>
<p><i>AQ/mm-8      Prior to issuance of grading permits from the County of San Luis Obispo, the Harbor District or their designee shall provide satisfactory evidence that a SLOAPCD-approved Construction Activity Monitoring Plan (CAMP) has been prepared that addresses fugitive dust emissions. The Plan shall include requirements in the SLOAPCD CEQA Handbook. Fugitive dust mitigation measures in the plan shall include a combination of the following, as approved by the SLOAPCD:</i></p> <ul style="list-style-type: none"> <li><i>a. Reduce the amount of the disturbed area where possible.</i></li> <li><i>b. Use of water trucks or sprinkler systems in sufficient quantities to prevent airborne dust from leaving the site. An adequate water supply source must be identified. Increased watering frequency would be required whenever wind speeds exceed 15 mph. Reclaimed (non-potable) water should be used whenever possible.</i></li> <li><i>c. All dirt stockpile areas should be sprayed daily as needed, covered, or a SLOAPCD-approved alternative method will be used. (90% reduction).</i></li> <li><i>d. Permanent dust control measures identified in the approved project revegetation and landscape plans should be implemented as soon as possible following completion of any soil disturbing activities.</i></li> <li><i>e. Exposed ground areas that will be reworked at dates greater than one month after initial grading should be sown with a fast-germinating non-invasive grass seed and watered until vegetation is established, unless other dust and erosion control measures are specified in the agency-approved Dust Control Plan.</i></li> <li><i>f. All disturbed soil areas not subject to revegetation should be stabilized using approved chemical soil binders, jute netting, or other methods approved in advance by the SLOAPCD.</i></li> <li><i>g. All roadways, driveways, sidewalks, etc. to be paved should be completed as soon as possible. In addition, building pads should be laid as soon as possible after grading unless seeding or soil binders are used.</i></li> <li><i>h. Vehicle speed for all construction vehicles shall not exceed 15 mph on any unpaved surface at the construction site.</i></li> </ul>

<b>AQ Impact 2</b>	
	<p><i>i. All trucks hauling dirt, sand, soil, or other loose materials are to be covered or should maintain at least 2 feet of freeboard (minimum vertical distance between top of load and top of trailer) in accordance with California Vehicle Code §23114.</i></p> <p><i>j. Install wheel washers where vehicles enter and exit unpaved roads onto streets, or wash off trucks and equipment leaving the site.</i></p> <p><i>k. Sweep streets at the end of each day if visible soil material is carried onto adjacent paved roads. Water sweepers with reclaimed water should be used where feasible</i></p> <p><i>l. Apply water every 3 hours to disturbed areas within the construction site (61% reduction in particulate emissions).</i></p> <p><i>m. Application of soil binders to dirt roads shall be applied to achieve at least an 80% reduction in fugitive dust emissions. All soil binders used shall be 'environmentally friendly' and shall be either lignosulfonate- or calcium lignosulfonate-based approved by the SLOAPCD. All dust control methods, including soil binders, shall be demonstrated in the fugitive dust control plan to ensure compliance with SLOAPCD Rule 401.</i></p> <p><del><i>n. All roadway, driveway, and sidewalk paving should be completed as soon as possible. In addition, building pads should be laid as soon as possible after grading unless seeding or soil binders are used.</i></del></p> <p><i>e-n. The contractor or builder shall designate a person to monitor the fugitive dust emissions and oversee mitigation measure implementation as per SLOAPCD approval to minimize dust complaints, reduce visible emissions to less than 20% opacity, and to prevent transport of dust off-site. The designated monitor shall carry out these duties on regular workdays, as well as holidays and weekends when work may not be in progress. The name and telephone number of the designated monitor shall be provided to the SLOAPCD Compliance Division prior to the start of any grading, earthwork, or demolition.</i></p>
AQ/mm-9	<p><i>Prior to issuance of grading permits from the County of San Luis Obispo, the Harbor District or their designee shall submit an APCD-approved CAMP, which shall include, but not be limited to the following elements:</i></p> <p><i>a. A Dust Control Management Plan that encompasses all, but is not limited to, measures identified in AQ/mm-8 and AQ/mm-13 (if required);</i></p> <p><i>b. Tabulation of on- and off-road construction equipment information (e.g., make, model, type, engine tier, DPM Level 3 filter age, horse-power, and miles or hours of operation);</i></p> <p><i>c. Construction truck trips scheduled during non-peak hours to reduce peak-hour emissions;</i></p> <p><i>d. Limited construction work-day period, if necessary; and</i></p> <p><i>e. Phase construction activities, if appropriate.</i></p>
AQ/mm-10	<p><i>Prior to issuance of grading permits from the County of San Luis Obispo, the Harbor District or their designee shall implement the following idle-restricting measures for both on- and off-road equipment during the project grading and construction phase near sensitive receptors:</i></p> <p><i>a. Staging and queuing areas shall not be located within 1,000 feet of sensitive receptors or applicable measures shall be employed as per the direction of the SLOAPCD, including monitoring or low-particulate engine technologies;</i></p> <p><i>b. Diesel idling within 1,000 feet of sensitive receptors is not permitted or applicable measures shall be employed as per the direction of the SLOAPCD, including monitoring or low-particulate engine technologies;</i></p> <p><i>c. Use alternative fueled equipment whenever possible; and</i></p> <p><i>d. Signs identifying the no idling requirements must be posted and enforced at the construction site.</i></p>
AQ/mm-11	<p><i>Prior to issuance of grading permits from the County of San Luis Obispo, the Harbor District or their designee shall implement the following idle-restricting measures for on-road vehicles during the grading and construction phases of the project:</i></p> <p><i>a. Section 2485 of CCR Title 13 limits diesel-fueled commercial motor vehicles that operate in the State of California with gross vehicular weight ratings of greater than 10,000 pounds and licensed for operation on highways. It applies to California and non-California</i></p>

<b>AQ Impact 2</b>	
	<p>based vehicles. In general, the regulation specifies that drivers of these vehicles:</p> <ul style="list-style-type: none"> <li>- Shall not idle the vehicle's primary diesel engine for more than 5 minutes at any location, except as noted in Subsection (d) of the regulation; and,</li> <li>- Shall not operate a diesel-fueled auxiliary power system (APS) to power a heater, air conditioner, or any ancillary equipment on that vehicle during sleeping or resting in a sleeper berth for greater than 5 minutes at any location when within 100 feet of a restricted area, except as noted in Subsection (d) of the regulation.</li> </ul> <p>b. Signs shall be posted in the designated queuing areas and job sites to remind on-road equipment operators of the 5-minute idling limit.</p>
AQ/mm-12	<p>Prior to issuance of applicable grading permit, the Harbor District (or their designee) shall implement the following idle restricting measures for off-road vehicles during the construction phase of the project:</p> <ul style="list-style-type: none"> <li>a. Off-road diesel equipment shall comply with the 5-minute idling restriction identified in §2449(d)(3) of the CARB In-Use off-Road Diesel regulation: <a href="http://www.arb.ca.gov/regact/2007/ordiesl07/frooal.pdf">www.arb.ca.gov/regact/2007/ordiesl07/frooal.pdf</a>.</li> <li>b. Signs shall be posted in the designated queuing areas and job sites to remind off-road equipment operators of the 5-minute idling limit.</li> </ul>
<b>Residual Impacts</b>	
Implementation of Standard Construction Measures, BACT and CAMP, and dust control measures would reduce potential air quality impacts related to fugitive dust to less than significant.	

When rock containing naturally-occurring asbestos is broken or crushed, such as during grading operations, asbestos fibers may be released and become airborne. Exposure to asbestos fibers may result in health issues such as lung cancer, mesothelioma, and asbestosis. In addition, during construction, materials containing asbestos may be discovered, and would require special handling pursuant to existing regulations and mitigation identified below.

<b>AQ Impact 3</b>	
	Grading and construction activities have the potential to result in disturbance of naturally-occurring asbestos and/or asbestos containing materials.
<b>Mitigation Measures</b>	
AQ/mm-13	<p>Prior to issuance of grading permits from the County of San Luis Obispo, the Harbor District or their designee shall submit a geologic evaluation under the CARB Air Toxics Control Measure (ATCM) for Construction, Grading, Quarrying, and Surface Mining Operations, to determine if Naturally Occurring Asbestos (NOA) is present within the area that will be disturbed. NOA has been identified as a toxic air contaminant by the CARB. If NOA is not present, an exemption request must be filed with the District. If NOA is found at the site, the Harbor District (or their designee) must 1) comply with all requirements outlined in the Asbestos ATCM. This may include development of an Asbestos Dust Mitigation Plan and an Asbestos Health and Safety Program for approval by the SLOAPCD; 2) require that any crushing operations do not result in any dust that is visible crossing the property line, does not discharge into the air any visible emissions other than uncombined water vapor, for a period aggregating more than 3 minutes in any 1 hour which are 50% as dark or darker in shade as that designated as number one on the Ringlemann Chart or exceed at 10% opacity; and 3) conduct a geological evaluation prior to any grading. Technical Appendix 4.4 of the SLOAPCD CEQA Handbook includes a map of zones throughout the County where NOA has been found. More information on NOA is available at <a href="http://www.slocleanair.org/business/asbestos.php">http://www.slocleanair.org/business/asbestos.php</a>.</p>

<b>AQ Impact 3</b>	
<b>AQ/mm-14</b>	<p><i>Prior to issuance of demolition permits (if required) and during grading and construction, the Harbor District or their designee shall comply with asbestos containing material (ACM) requirements. Demolition activities can have potential negative air quality impacts, including issues surrounding proper handling, demolition, and disposal of ACM. ACM could be encountered during demolition or remodeling of existing buildings. Asbestos can also be found in utility pipes and pipelines (transite pipes or insulation on pipes). If utility pipelines are scheduled for removal or relocation or a building(s) is proposed to be removed or renovated, various regulatory requirements may apply, including the requirements stipulated in the National Emission Standard for Hazardous Air Pollutants (40 Code of Federal Regulations [CFR] 61, Subpart M - asbestos National Emission Standards for Hazardous Air Pollutants [NESHAP]). These requirements include but are not limited to: (1) notification to the SLOAPCD; (2) an asbestos survey conducted by a Certified Asbestos Inspector; and (3) applicable removal and disposal requirements of identified ACM. More information on asbestos is available at <a href="http://www.slocleanair.org/business/asbestos.php">http://www.slocleanair.org/business/asbestos.php</a>.</i></p>
<b>Residual Impacts</b>	
<p>Implementation of standard measures, including compliance with existing regulations noted above, would reduce potential impacts related to naturally-occurring and material-containing asbestos to less than significant.</p>	

### Operational Emissions

Based on the traffic impact study conducted for the project, which considered a “worst case scenario,” the average additional net daily trips generated by the project would be 1,215 trips (Central Coast Transportation Consulting [CCTC] 2014). Additional emissions would be generated by energy use and gas heaters in permanent units, which are included in the modeled emissions. Operational emissions that would result from the proposed project were calculated using CalEEMod, pursuant to the CEQA Handbook, before and after standard mitigation (refer to Tables 4.2-5 and 4.2-6 below). Based on implementation of operational mitigation measures would reduce area source, energy use, and mobile emissions to less than significant. In addition to the sources of operational emissions captured by CalEEMod, use of the project would include fire pits at each campsite, which would generate sources of particulate matter. The amount of particulate matter would vary depending on use and daily and nightly temperatures. The Harbor District reserves the right to prohibit use of the fire pits based on fire hazard conditions, including drought conditions and high winds, and during poor air quality conditions as determined by the SLOAPCD. Based on the anticipated dispersal of particulates, and limited amount of wood burned in campsite-sized fire pits, the potential additional impact is not anticipated to increase PM<sub>10</sub> emissions above identified thresholds.

**Table 4.2-6. Operational Emissions (Unmitigated)**

	<b>ROG</b>	<b>NO<sub>x</sub></b>	<b>PM<sub>10</sub></b>	<b>DPM</b>	<b>CO</b>	<b>CO<sub>2e</sub> (MT)</b>
Winter (lbs/day)	41.30	13.58	4.09	32.40	168.31	9,407.18
Threshold (lbs/day)	25 (ROG and NO <sub>x</sub> )		25	1.25	550	n/a
Mitigation Required	<b>Yes</b>		No	<b>Yes</b>	No	n/a
Annual (tons/year)	3.25	2.24	0.72	1.05	11.85	1,860.06
Annual Threshold tons/year)	25 (ROG and NO <sub>x</sub> )		25	n/a	n/a	1,150.00
Mitigation Required	No		No	n/a	n/a	<b>Yes</b>

**Table 4.2-7. Operational Emissions (Mitigated)**

	ROG	NO <sub>x</sub>	PM <sub>10</sub>	DPM	CO	CO <sub>2e</sub> (MT)
Winter (lbs/day)	12.31	11.41	3.89	0.46	46.64	6,895.36
Threshold (lbs/day)	25 (ROG and NO <sub>x</sub> )		25	1.25	550	n/a
Additional Mitigation Required	No		No	No	No	n/a
Annual (tons/year)	2.17	2.07	0.69	0.08	7.98	1,598.25
Annual Threshold (tons/year)	25 (ROG and NO <sub>x</sub> )		25	n/a	n/a	1,150.00
Mitigation Required	No		No	n/a	n/a	<b>Yes</b>

<b>AQ Impact 4</b>	
Operational activities associated with the project would generate ROG + NO <sub>x</sub> , PM <sub>10</sub> , and DPM emissions exceeding identified daily thresholds.	
<b>Mitigation Measures</b>	
AQ/mm-15	<p><i>Prior to issuance of construction permits from the County of San Luis Obispo, the Harbor District or their designee shall implement the following mitigation measures to reduce area source emissions, where applicable:</i></p> <ul style="list-style-type: none"> <li>a. <i>Increase walls and attic insulation by 20% above what is required by the 2008 Title 24 requirements.</i></li> <li>b. <i>Shade tree planting along southern exposures of buildings to reduce summer cooling needs.</i></li> <li>c. <i>Shade tree planting in parking lots to reduce evaporative emissions from parked vehicles.</i></li> <li>d. <i>Use built-in energy efficient appliances, where applicable.</i></li> <li>e. <i>Orient buildings toward streets with convenient pedestrian and transit access.</i></li> <li>f. <i>Use double-paned windows.</i></li> <li>g. <i>Use sodium low-energy parking lot and streetlights. (e.g., sodium)</i></li> <li>h. <i>Use energy efficient interior lighting.</i></li> <li>i. <i>Incorporate energy efficient skylights (if any) into roof plan (i.e., should meet the US EPA/Department of Energy (DOE) Energy Star® rating).</i></li> <li>j. <i>Install High efficiency or gas space heating.</i></li> <li>k. <i>Install door sweeps and weather stripping if more efficient doors and windows are not available.</i></li> <li>l. <i>Apply low volatile organic compound (VOC) paint (interior and exterior) (71 grams/liter or less).</i></li> <li>m. <i>Institute recycling and composting services (as feasible).</i></li> <li>n. <i>Incorporate a water efficient irrigation system.</i></li> <li><u><i>o. Locate proposed fire pits at least 100 feet apart, at least 700 feet from any on-site manager residence where feasible, and as far as feasible from proposed hotel/motel units.</i></u></li> </ul>
AQ/mm-16	<p><i>Prior to issuance of construction permits, the Harbor District or their designee shall submit plans showing the following measures, which shall be implemented prior to occupancy to reduce vehicle emissions.</i></p> <ul style="list-style-type: none"> <li>a. <i>Locate electrical vehicle charging station(s) in the parking lots at a ratio required by</i></li> </ul>

<b>AQ Impact 4</b>	
	<p>County or as recommended by SLOAPCD.</p> <ul style="list-style-type: none"> <li>- Provide long-and short-term bicycle parking onsite or within the Harford Pier parking area for employees; one bicycle parking space for every 10 employees is considered appropriate.</li> <li>- Provide shower stalls and locker facilities to encourage employees to bike to work.</li> <li>- Provide facilities for eating and convenience including refrigeration and other vending for employees onsite or within the Harford Pier parking area.</li> <li>- Internal circulation shall to the greatest extent possible be with all-electric vehicles.</li> <li>- Options shall be provided to guests for electric vehicle transport to adjacent District facilities.</li> </ul>
AQ/mm-17	<p>Prior to operation, the Harbor District or their designee shall obtain all required permits for equipment, including but not limited to the portable generators and equipment with engines that are 50 hp or greater.</p>
AQ/mm-18	<p>During operation of the proposed project, the Harbor District or their designee shall comply with SLOAPCD Operational Phase Idling Limitations. Public health risk benefits can be realized by idle limitations for diesel engines. To help reduce the emissions impact of diesel vehicles that will access the facility or off-road equipment, the following idling control techniques shall be implemented:</p> <p><b>California Diesel Idling Regulations</b></p> <ol style="list-style-type: none"> <li>a. On-road diesel vehicles shall comply with §2485 of CCR Title 13. This regulation limits idling from diesel-fueled commercial motor vehicles with gross vehicular weight ratings of more than 10,000 pounds and licensed for operation on highways. It applies to California and non-California based vehicles. In general, the regulation specifies that drivers of said vehicles: <ul style="list-style-type: none"> <li>- Shall not idle the vehicle's primary diesel engine for greater than 5 minutes at any location, except as noted in Subsection (d) of the regulation; and,</li> <li>- Shall not operate a diesel-fueled auxiliary power system (APS) to power a heater, air conditioner, or any ancillary equipment on that vehicle during sleeping or resting in a sleeper berth for greater than 5 minutes at any location when within 1,000 feet of a restricted area, except as noted in Subsection (d) of the regulation.</li> </ul> </li> <li>b. Off-road diesel equipment shall comply with the 5-minute idling restriction identified in §2449(d)(3) of the CARB's In-Use off-Road Diesel regulation, Rule 402.</li> <li>c. Signs must be posted in the designated queuing areas and job sites to remind drivers and operators of the state's 5-minute idling limit.</li> <li>d. The specific requirements and exceptions in the regulations can be reviewed at the following web sites: <a href="http://www.arb.ca.gov/msprog/truck-idling/2485.pdf">www.arb.ca.gov/msprog/truck-idling/2485.pdf</a> and <a href="http://www.arb.ca.gov/regact/2007/ordiesl07/frooal.pdf">www.arb.ca.gov/regact/2007/ordiesl07/frooal.pdf</a>.</li> <li>e. In addition to the State required diesel idling requirements, the project shall comply with these more restrictive requirements to minimize impacts to nearby sensitive receptors, including onsite visitors: <ul style="list-style-type: none"> <li>- Staging and queuing areas shall not be located within 1,000 feet of sensitive receptors;</li> <li>- Diesel idling within 1,000 feet of sensitive receptors shall not be permitted;</li> <li>- Use of alternative fueled equipment is recommended; and</li> <li>- Signs that specify the no idling areas must be posted and enforced at the site.</li> </ul> </li> </ol>
<b>Residual Impacts</b>	
<p>Implementation of standard measures, including compliance with existing regulations noted above, would reduce potential impacts related to operational emissions to less than significant.</p>	

### Expose any Sensitive Receptor to Substantial Air Pollutant Concentrations

The project is located in proximity to sensitive land uses. Construction activities can generate fugitive dust, which could be a nuisance to residents and businesses in proximity to the project site. Dust complaints could result in a violation of the SLOAPCD's 402 Nuisance Rule. In addition, operation of construction equipment and operational equipment, including equipment idling, generates diesel particulate matter, which can have an adverse effect on sensitive receptors. This impact is captured above, and noted mitigation would apply.

### Create or Subject Individuals to Objectionable Odors

Occasionally, marine life and other ocean-related conditions can generate objectionable odors such as animal decay and fish or shellfish operations. It is anticipated that occurrences would not be frequent, and visitors to the campsite would anticipate a certain degree of ocean-related odors. Therefore, potential impacts would be less than significant.

### Clean Air Plan Consistency

The project is consistent with the general level of development anticipated and projected in the CAP, and would provide coastal dependent and visitor-serving uses consistent with the land use category and Port Master Plan. Therefore, potential impacts would be less than significant.

## **4.2.6 Cumulative Impacts**

The cumulative impact scenario includes build-out under the Port Master Plan. The Port Master Plan Final Program EIR (CMCA 2004) included an assessment of the development of Harbor Terrace. A significant, adverse, and unavoidable air quality impact was identified due to the generation of construction-related emissions associated with build-out of the Master Plan, including development of Harbor Terrace. Standard mitigation measures were identified in the Final Program EIR; the EIR for the proposed project includes an updated emissions model and applies current mitigation measures identified in the SLOAPCD CEQA Handbook. The generation of emissions associated with Harbor Terrace consists of a significant portion of noted emissions based on the amount of grading required to prepare the site for development and to address potential geologic hazards.

Projects located outside of the Harbor District that may affect air quality includes the Avila Tank Farm remediation, general plan amendment, and development project and buildout of the Avila Urban Area and San Luis Bay Estates Master Plan. An analysis of air quality impacts would be conducted during environmental review for the Avila Tank Farm project, and is anticipated to result in construction and operation-related air emissions, which would require implementation of mitigation measures. In general, standard air quality mitigation measures apply to all discretionary projects in the County.

As discussed under project impacts, identified mitigation would reduce potential adverse air quality effects to less than significant. Therefore, the project would not result in a cumulatively considerable significant air quality impact.

This page intentionally left blank.